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81

Libby

1 answering that initial question that I proposed? Did they get  
2 their illness from exposure to a Grace product?

3 Q I'm showing you 2283. Could you explain exactly why the  
4 issue is framed in the way or question is framed in the way  
5 reflected on 2283?

6 A Yes, and the question really is exactly this question,  
7 what does science say about the significance of doses resulting  
8 from exposure to Grace products.

9 Q In order to answer that question, I see that the next step  
10 is reflected in 2269. Just to compare the doses to these  
11 benchmarks, could you describe in your own terms what is  
12 involved in that exercise?

13 A Yes, as I spoke of earlier, we spoke of the Koch  
14 principles. We spoke of the world of epidemiology and dose  
15 response, and I know that this Court has heard from Dr.  
16 Moolgavkar who works in this particular field, and the concept  
17 of having now these cumulative exposures and asking this  
18 essential question really is what does it mean in terms of  
19 disease causation or these high levels, low levels, how can we  
20 compare them to some benchmarks that might give us guidance as  
21 to their significance.

22 Q What benchmarks did you use?

23 A I used benchmarks from Dr. Moolgavkar's analysis, and I  
24 think I emphasized in my deposition that I have the utmost  
25 confidence in Dr. Moolgavkar, but there's a long history here.

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82

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1 There's a longer history than just his opinions, because this  
2 work has been evolving over many, many years, and his work is  
3 the essential work that brings all of this literature together,  
4 but we find a great deal of support in the literature for his  
5 work.

6 Q Have you offered an independent opinion with respect to  
7 the epidemiology, or are you relying upon Dr. Moolgavkar's  
8 work?

9 A I'm relying on Dr. Moolgavkar's work.

10 Q I'm showing you 2262. Is this --

11 MR. BERNICK: I believe, Your Honor, it may actually  
12 already be in evidence under a different number.

13 Q But are these the benchmarks -- from what Dr. Moolgavkar,  
14 but are these the benchmarks that you used in the course of  
15 your analysis?

16 A Yes, they are.

17 Q Okay. Now, Dr. Moolgavkar talked about the fact that  
18 there were not reliable data -- observational data that was  
19 gathered below 15 -- a burden of 15 fibers per mil per year.  
20 Are you familiar with the 15 fiber per mil -- fiber per mil per  
21 year concept?

22 A Yes, I am.

23 Q Okay, and he then further observed that once you get below  
24 15, you're in, therefore, a range of the unobserved, and then  
25 below 2.8, which came from the auto workers study or the auto

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83

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1 mechanics study, you were in a range of risk, in a sense,  
2 affirmatively not being seen. Now, I don't want to ask you  
3 about the details of those different numbers. I simply want to  
4 ask you are you familiar with those basic concepts? That is a  
5 range of observed data -- reliably-observed data, a range where  
6 there isn't reliable observational data, and then an area where  
7 there is reliable observational data, but it doesn't show a  
8 risk.

9 A Yes, I am, and we have spoken of this concept since 1976.

10 Q I want to show --

11 A The range of observation --

12 Q Wait. Let me interrupt you for just a second --

13 A Yes.

14 Q -- and just put on the board 2284, which I believe already  
15 has been used by Dr. Moolgavkar, but I'm -- my focus with you  
16 is to simply have you, as you were beginning to say, provide  
17 the historical regulatory perspective. That's what I want you  
18 to comment on, is the regulatory side of what is illustrated in  
19 that chart.

20 A Yes, I spoke earlier on the earlier slide of the  
21 divergence between evidence of causality and evidence that is a  
22 preemptive public health policy-based approach. And here the  
23 first one of these curves was drawn when I was at EPA in 1976.  
24 Conceptually, we see with agents an observed range from human  
25 studies, sometimes only animal studies, but the important thing

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84

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1 is as we leave that range of observation, we regard that range  
2 as science based.

3 As we go downward, EPA to this day -- and we created  
4 this curve in 1976 as a means of establishing a plausible upper  
5 bound on the risk, meaning the real risk could be less even  
6 approaching zero, and we put that label on every document that  
7 we wrote at EPA when I was there. And I think the other  
8 important thing is I've observed the use of this generic  
9 approach by the National Academy of Sciences and the Institute  
10 of Medicine. I was familiar with and commented on some of  
11 their work, and an example of that work is the Gulf War  
12 veterans study where they actually made distinctions about  
13 establishing causality from exposure for those individuals and  
14 chose to use only the observed range for that work.

15 Q Thank you. And that gets back to the difference between  
16 science --

17 A That's right.

18 Q -- and the regulatory guidance or rule?

19 A That's right, and the inference judgments that I used to  
20 fill gaps, so that rule making can go forward.

21 Q Thank you. I want to now turn to how it is that you used  
22 -- if we could go back to 2262, you said that you used Dr.  
23 Moolgavkar's benchmarks. I want to talk about how it is that  
24 you applied or used those benchmarks by reference to the  
25 cumulative doses that you determine in part on the basis of Dr.

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85

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1 Lees' with an S work. And I want to show you Exhibit 2285 and  
2 ask you whether this would assist you in explaining to the  
3 Court the comparison that you did. The answer to that is yes  
4 or no.

5 A Yes, I think it will assist us.

6 Q Okay, so now could you explain how -- what it is that is  
7 reflected in 2285?

8 A Yes, the values that we saw earlier and which are  
9 displayed here as the dose cumulative exposure values can now  
10 be compared to these benchmarks to give us some guidance as to  
11 what they mean. We see for the A category an accedence of  
12 these conservative screens of the 15. We see for the B  
13 category an accedence of no benchmark. For the C category the  
14 maximum is a 12, so it's below the 15. It's in the zone of  
15 inference. It's above the relative risk, a modeled calculation  
16 for Libby Fibers, but it's -- well, let's move on to D. D and  
17 E are very small exposures relative to the benchmarks, and they  
18 are under all of the benchmarks.

19 Q Okay. This compare --

20 A And I should note that the 3.2 number is a mixed fiber  
21 number that includes chrysotile, which is the most potent of  
22 the fibers and is not in the Grace product, so I don't take  
23 that benchmark to be particularly useful.

24 Q That's the one that's --

25 THE COURT: Which one? I'm sorry. Which one. I'm

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86

Libby

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1 sorry?  
2 THE WITNESS: Three point two.  
3 THE COURT: Point two.  
4 THE WITNESS: It's referred to as meso-relative risk  
5 to mixed fibers.  
6 THE COURT: Okay.  
7 THE WITNESS: My understanding from speaking with Dr.  
8 Moolgavkar is that's taken from --  
9 MR. MULLADY: Objection, Your Honor.  
10 THE WITNESS: -- an EPA --  
11 MR. MULLADY: Objection, Your Honor, the witness is  
12 about to tell us about a conversation she had with Dr.  
13 Moolgavkar about these fiber concentrations. That's hearsay.  
14 THE COURT: She is, but --  
15 MR. BERNICK: No, it --  
16 THE COURT: -- Dr. Moolgavkar's already made that  
17 same statement yesterday on the stand.  
18 MR. BERNICK: Right, but it's -- she's an expert.  
19 THE COURT: He also testified to that same fact on  
20 the stand yesterday. The record will substantiate that. He  
21 made the same statement on the stand yesterday.  
22 MR. BERNICK: Right.  
23 BY MR. BERNICK:  
24 Q Just to review briefly, we have marked here the 2.8, which  
25 he said came from the auto workers study or the risk was not

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87

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1 observed, the relative risk calculation -- relative risk of 2  
2 with respect to mixed fibers, the 3.2, the working lifetime  
3 exposure, the OSHA fell 4.5, the relative risk of 2 for --  
4 based on modeling for Libby fibers and meso, 15 which is the  
5 lowest observed average exposure for meso, and then ranging way  
6 up to asbestosis threshold, chrysotile, relative risk of 2 and  
7 the like. Now, does Exhibit 2285 accurately summarize the  
8 comparative data that you used in connection with benchmarking  
9 the dose -- the cumulative doses with respect to the five  
10 categories?

11 A Yes, it does.

12 Q I want to turn to ask you and show you 2286. Could you  
13 explain, based upon the comparison that you did, what  
14 determinations you made with respect to the exposures as  
15 determined in accordance with your risk assessment? What  
16 assessment did you make with respect to the exposures of people  
17 who worked in occupations A, B, C, D, and E? What decision or  
18 what determination did you make?

19 A Well, I found unequivocally that people in Categories B,  
20 D, and E are well below all of the benchmarks and need not be  
21 considered further. The Categories A and C claimants I have  
22 suggested should be further evaluated despite the fact that the  
23 C category is below the observed benchmark, and they have  
24 passed through -- if we want to call this a screening exercise,  
25 those two categories have passed through for further analysis

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88

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1 but not B, D, and E.

2 Q I want to take the last step now that we see on the board,  
3 2296, which we see it's called Risk for Claimants. Why is it  
4 that risk assessment goes beyond the comparison of calculated  
5 doses in benchmarks? Why is it that the risk assessment takes  
6 another step?

7 A I'm not sure I understand the question.

8 Q Yes. Well, why do we have another step to take here?

9 A Oh.

10 Q Why another step?

11 A Well, I mean the important issue, as I understand it, is  
12 what are the merits of these claims going forward, and the  
13 information that I have now provided, as I understand it, will  
14 go into a claims review analysis for further evaluation. So  
15 the results of this analysis now go to the claims reviewers and  
16 Dr. Florence.

17 Q So we're talking about a risk for a population of people.

18 A That's right.

19 Q Okay. Now, in order to get into this area could you tell  
20 the Court whether or not at your direction the PIQs -- a  
21 certain number of PIQs and a certain number of closed claims  
22 were reviewed?

23 A Yes, they were.

24 Q Okay, and showing you 2289, does this reflect -- 2289  
25 first. Does this reflect the claims that reviewed by people in



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89

Libby

1 your organization at your direction for purposes of figuring  
2 out what categories they belong?

3 A Yes.

4 Q Okay, and we have 15 hundred 96 mesothelioma claims, 32  
5 lung cancer claims, 115 laryngeal cancer claims, 152 non-  
6 malignant disease claims, and then with respect to the closed  
7 claims, 350 mesothelioma claims. Is that right?

8 A That's correct.

9 Q Okay. Now was there a procedure -- were there procedures  
10 established for purposes of this review?

11 A Yes, there were very strict procedures established with  
12 the team who did the review?

13 Q Showing you 2288, does this slide -- would this slide  
14 assist you in explaining the procedures or the steps that were  
15 taken in order to conduct this review?

16 A Yes, it does. We first needed to and did design a  
17 protocol to insure the proper assignment of claimants to the  
18 nature of exposure categories that would be consistent with Dr.  
19 Lees' definitions of exposure.

20 Q Okay. Let's -- Dr. Lees' defined categories on the basis  
21 of those definitions looked for corresponding industrial  
22 hygiene data, and then in order -- and then in doing the claims  
23 review to find out what categories people belonged in, tell us  
24 why it was important for the same definitions to be used. That  
25 is not just the definitions that somebody else might think of

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90

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Libby 1 like a claimant or a worker or anybody. Why was it important  
2 to use Dr. Lees' definitions in reviewing the claim files?

3 A Because we were assigning these claimants to a nature of  
4 exposure category, and he had defined that category and  
5 collected the data, analyzed the data, and presented the data.  
6 So the two had to mesh. They had to be identical, as close as  
7 we could get them.

8 Q Okay. Why don't you continue to go on and talk about the  
9 steps that were undertaken thereafter in connection with the  
10 review?

11 A Well, next the review team was identified, obviously  
12 choosing people with appropriate experience and credentials.  
13 We established training sessions. We established quality  
14 control procedures. We had double review. And the actual  
15 claims review proceeded along the following lines. Obviously,  
16 the claims were inconsistent, and there were times when things  
17 were not quite as simple as other times, but we, first of all,  
18 accepted the self-identified claimants. If they checked the  
19 box that they were asked to check, A, B, C, D, or E, we  
20 accepted that. If they checked more than one box, we elevated  
21 their exposures to the highest exposure category. So they'd  
22 become an A or C instead of if they checked all boxes.

23 If a claimant did not self-identify, then we bent  
24 over backwards to review the attached materials referred to  
25 here as best evidence. We wanted to try as hard as we could to

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91

Libby

1 classify the claimants from that attached material. So we did  
2 review the attachments, and we looked for identifying  
3 statements of what kind of product they were exposed to, how  
4 they were exposed, and over what durations.

5 Q Okay.

6 A If, in fact, there was insufficient information and after  
7 all of the review we called it insufficient, allocated it to  
8 insufficient category, and I've already mentioned always  
9 elevating to the highest category if they mentioned several  
10 possible exposures.

11 Q I want to focus on one particular feature, which you've  
12 just talked about, and use Slide 2290 to do that.

13 MR. BERNICK: Could you show 2290, P.J.?

14 Q There have been questions asked about, well, what if  
15 somebody says here's what my job was, and so I -- and I want  
16 you to explain how it is that you figured out what category a  
17 claimant belonged in where they had actually checked off the  
18 box on the form or not checked off the box on the form.

19 A Well, if they checked off the box on the form, we call  
20 that the claimant's identified the nature of exposure. We did  
21 not question that. If they checked the box, we accepted it.

22 Q Or if their lawyer checked the box, and they signed off on  
23 it.

24 A That's right.

25 Q Okay.

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92

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1 A Whoever checked the box, it was accepted. We then went to  
2 the attached materials where there was no self-identification,  
3 and we reviewed the claimant's information that was attached.  
4 And I think I've discussed some of the elements of that review.  
5 If there were inconsistencies, if there were questions, we had  
6 a key senior team to help answer those questions about what had  
7 been found.

8 Q Okay. Showing you 2291, based upon the results that came  
9 from this review process, were you later able to compare and  
10 see whether there was a significant difference between the  
11 self-identifieds and the best evidence claimants when it came  
12 to these different categories? And just explain 2291, if you  
13 would.

14 A Yes, on the left-hand side there is a pie chart that shows  
15 the percentages of nature of exposure categories that the self-  
16 identified claimants fell into. So we see 77 percent of the B,  
17 D, and E, 19 percent fell into the A/C category, and 4 percent  
18 into the other category. On the right-hand side we see a pie  
19 chart that reflected what I'm referring to as the best  
20 evidence. This means there was no self-identification.

21 We have to go to the attached materials and analyze  
22 the attached materials in order to assign a nature of exposure  
23 category, and we see here the very similar results. We had 90  
24 -- 79 percent B, D, and E's versus 77. The A's and C's turned  
25 out to be pretty much identical, and the opposite two percent

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93

Libby

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1 difference. So this gave us confidence that we had a pattern  
2 that was evolving and was repeated in the best evidence review.

3 Q Okay. Is 2291 an accurate summary of the data that exists  
4 on that subject?

5 A Yes, it is.

6 Q Turning to 2292, what did you find out after the -- let me  
7 just ask did you have the opportunity to look at the results of  
8 the review to gather further information about how these -- how  
9 these claimants based upon their attachments compared to the  
10 benchmarks that applied to your work?

11 A Yes, and this slide summarizes that work. We did the same  
12 kind of review for the lung cancer claimants and the -- for the  
13 laryngeal cancer claimants, and we find the results of those  
14 analyses all were below the benchmarks.

15 Q Okay. Well, let's be --

16 A They did not exceed the benchmarks.

17 Q Let's be clear about this. Were you able to -- this slide  
18 reflects a comparison between the results of your review, on  
19 the one hand, and the benchmarks, on the other. Were you able  
20 to make that comparison with respect to all people who make  
21 claims that you reviewed for lung cancer? That is is the  
22 comparison one that you were able to make for all the claimants  
23 that you looked at?

24 A Yes, we could -- well, I don't recall how many did not  
25 provide sufficient information.

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94

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- 1 Q Okay, so this is where they had sufficient information to  
2 make --
- 3 A Well, we had sufficient information, yes.
- 4 Q Okay.
- 5 A We did the very same thing we did with the other reviews.
- 6 Q Okay, and you said all claims did not exceed benchmarks  
7 with respect to both lung cancer and laryngeal cancer?
- 8 A That's right. And you'll recall that those are very high  
9 benchmarks on Dr. Moolgavkar's benchmark chart.
- 10 Q What did you find out with respect to their status as  
11 smokers?
- 12 A Well, we found, of course, there's a confounder with  
13 smoking, and we found that all of the lung cancer claimants but  
14 one was a smoker, and about 90 percent of the claimants who  
15 claimed laryngeal cancer were smokers.
- 16 Q Could you tell us to what extent -- strike that. Two two  
17 nine two, does it accurately summarize the data that you  
18 gathered with respect to the comparison of claimants to  
19 benchmarks on lung cancer and laryngeal cancer?
- 20 A Yes.
- 21 Q And also their smoking status?
- 22 A Yes.
- 23 Q Okay. Turning to 2293, let's turn to mesothelioma and  
24 mesothelioma for people in Categories A and C, the ones that  
25 passed through the filter. Could you tell us in cases where it

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95

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1 was possible to make the determination based upon the data that  
2 you had how the A -- the mesothelioma claimants who fell into  
3 Categories A and C, how they compared with the benchmarks?

4 A Yes, this was interesting, because for those claimants who  
5 gave us information about that duration of exposure, we were  
6 able to adjust the duration from 45 years to the number of  
7 years they gave us, and, of course, then we had to go back to  
8 that rolling average, those tables, and select for that time  
9 period that they gave us, what the exposures would be. But in  
10 essence what we find for the A's and C's is that 98 percent are  
11 lower than 15 fibers per mil year, and 16 percent are lower,  
12 and that's the benchmark that's at the bottom of the range of  
13 observation. And we found 69 percent are lower than the 8.9  
14 fibers per mil year.

15 So that's just one adjustment from the very high  
16 screening values we used. All of the others are in here, the  
17 100 percent exposure, frequency 250 days a year. The only  
18 adjustment is just the duration adjustment we could claim.

19 Q I want to make that very clear. You went back to the  
20 PIQs, and based on the review you looked to the people who had  
21 fallen into Categories A and C and had mesothelioma, and where  
22 the information regarding duration was available you  
23 substituted in your risk assessment calculation the actual  
24 duration as reflected in --

25 A Correct.

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96

Libby

1 Q -- the PIQ. But when it came to the other assumptions  
2 that you made, that is regarding the product that they were  
3 exposed to where you maximized the product concentration and  
4 the very -- and the other assumptions that you used, did you  
5 change those conservative assumptions to be in a sense actual  
6 based upon the PIQ data, or did you continue to make those  
7 other conservative assumptions?

8 MR. MULLADY: Your Honor, objection.

9 A Continued to make all of the other conservative --

10 MR. MULLADY: Objection, Your Honor. Excuse me.  
11 I've been pretty tolerant of the leading up to this point, but  
12 this is a very important area of the case. I think we just  
13 heard Mr. Bernick testify for about five minutes.

14 MR. BERNICK: Well, actually, if you want to have the  
15 record read back, the witness said exactly the same point.  
16 That is that she had kept the other matters constant, and I  
17 wanted to make sure that the details of that were evident to  
18 the Court.

19 Q Happy to have the question rephrased, so that she can  
20 explain exactly what it is that you meant when you said in  
21 response to my question that you altered the duration alone.  
22 Just explain to the Court what you meant.

23 A All right. The only thing that we could glean from the  
24 questionnaire data that could be useful to this analysis that  
25 would alter the analysis in any way was the duration

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97

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1 information. So we altered the 45 years to match the actual  
2 years that the claimants provided for us. We continued to use  
3 all of the other conservative assumptions, and the only other  
4 thing we did is to match -- for those years they claimed, we  
5 have to go back to that rolling, instead of 45 year, that time  
6 period, select the highest value for the year -- for each year  
7 in the time period and do that analysis. All of the other  
8 maximum values were retained, nothing else is adjusted.

9 Q Okay. On the basis of this analysis what conclusion did  
10 you reach with respect to the A/C claimants?

11 A I concluded that on the -- I wrote this to -- on the  
12 right-hand side that there's a very high probability that many  
13 or most of the A's and C's that we are saying should be further  
14 evaluated actually are generously passed through the screen and  
15 passed on for further evaluation, because we see here just the  
16 impact of the alteration of one very conservative factor.

17 Q Let's -- go ahead. Let's turn to 2294. Does this slide  
18 now relate to the B, D, and E mesothelioma claimants?

19 A Yes, it does.

20 Q And could you tell us what it is that this slide reflects?

21 A All right. This slide is a similar analysis. This is for  
22 the B's, D's, and E's, and in those claimant questionnaires  
23 where they gave us their duration of exposure, we did the very  
24 same thing. We went back and took that duration of exposure,  
25 went to the data tables for the history of the products that

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98

Libby

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1 were in trades of commerce during that block of identified  
2 years, again selected the highest value for each year in the  
3 identified block, did the rolling average, and kept the highest  
4 value for those claimants. And what -- we altered absolutely  
5 nothing else.

6 We kept all of the maximum values, and what you see  
7 here is a shifting of the numbers. One hundred percent or less  
8 than the background -- I mean less than the benchmark except  
9 background, and I made a very similar conclusion here but a  
10 opposite one, and that is a very low probability, and no  
11 scientific evidence whatsoever that any of these B's, D's, and  
12 E's would exceed the benchmarks.

13 Q Okay, and does 2294 accurately summarize the data that  
14 came from that comparison?

15 A Yes, it does.

16 Q Turning to 2295, did you also look to see -- you had --  
17 you told us that you assumed that people spent their entire  
18 lives -- eight -- working lives eight hours a day working with  
19 Grace product. Based upon your review of the PIQs, what did  
20 you find about what the actual evidence showed?

21 A Well, in the PIQs I found that 94 percent of the claimants  
22 in Category A and C asserted other claims against other  
23 entities, and in 93 percent of the B's, D's, and E's asserted  
24 claims against other entities. So this tells me that the 45  
25 years is certainly too much. If they were doing other

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99

Libby

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1 occupations, they could not have had that much exposure most  
2 likely.

3 Q And what would that have done to your cumulative  
4 calculations by category if they actually had factored in this  
5 actual data?

6 A Well, if they left the workforce of exposure to Grace  
7 products and went into the workforce of exposure to other  
8 products, these numbers would be lowered in a commensurate way.

9 Q Were you able to make this comparison or derive these data  
10 with respect to all the claimants that you looked at? That's  
11 all the mesothelioma claimants.

12 A I can't recall, but I think most of them that we reviewed  
13 did provide -- we were able to make this comparison.

14 Q Okay. Let's go back to then our Board 2296.

15 THE COURT: Mr. Bernick --

16 MR. BERNICK: Yes.

17 THE COURT: -- you said 15 minutes 40 minutes ago. I  
18 think what we're going to do is take the recess if you're going  
19 to be much longer. How long are you going to be?

20 MR. BERNICK: Is it really that bad, Your Honor?

21 THE COURT: Yes, it is.

22 MR. BERNICK: Well, I apologize. I have this  
23 question. The last strip, and I've got three questions.

24 THE COURT: All right. We'll finish.

25 MR. BERNICK: I know if I didn't make a

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100

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- 1 representation about how much longer it would take --
- 2 Q Are we now in a position to peel off the last magnet and
- 3 show the balance of the assessments that you did as reflected
- 4 now in 2296?
- 5 A Yes.
- 6 Q Okay, and what conclusion did you reach with respect to
- 7 Categories A and C when it came -- comes to the evidence that
- 8 came from the PIQ review?
- 9 A Yes, I alluded to earlier, we have suggested that there's
- 10 some scientific evidence that those claims should be further
- 11 reviewed. For the B's, D's, and E's, we found no such
- 12 evidence.
- 13 Q Okay. Question 1, have you reached any conclusion as to
- 14 whether the process that you followed in conducting your risk
- 15 assessment analysis complies with accepted methods for
- 16 assessing whether there's scientific support for the claims
- 17 that have been made against Grace that you reviewed?
- 18 A Yes, this is certainly accepted scientific methodology.
- 19 Q Are you aware of any other accepted or any other accepted
- 20 or reliable scientific method for determining whether claims --
- 21 asbestos claims or claims of exposure and causation from
- 22 asbestos, whether they are supported by reliable science? Is
- 23 there any other accepted or reliable method for reaching that
- 24 assessment?
- 25 A I am under -- I'm unaware of any other method that would

Anderson - Direct/Bernick

101

Libby

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1 allow one to answer that essential question I posed in the  
2 beginning, and that is our -- the claimants exposure groups  
3 getting their disease from Grace product exposure. Without  
4 doing this assessment, I have no idea alternatively how any  
5 methodology can answer that question.

6 Q Okay. With respect to the claims that fall into  
7 Categories B, D, and E, do you have an opinion on whether there  
8 is reliable science supporting those claims of disease as being  
9 caused in whole or in part by exposure to Grace asbestos? Do  
10 you have an opinion?

11 THE COURT: We -- I'm sorry.

12 MR. MULLADY: Objection for --

13 THE COURT: We --

14 MR. MULLADY: Objection for the record, Your Honor.

15 THE COURT: Will you read the question for me again,  
16 please?

17 MR. BERNICK: Yes.

18 Q Do you have an opinion about whether there is reliable  
19 science to support the proposition that the claims falling into  
20 B, D, and E were caused in part or in whole by exposure to  
21 Grace asbestos? Do you have an opinion?

22 A Yes, I do.

23 Q And what is your opinion?

24 MR. MULLADY: Objection. For the record, Your Honor,  
25 the objection is to foundation. This witness is -- and this

Anderson - Direct/Bernick

102

Libby

1 will be borne out on cross examination. But for the record,  
2 the opinion is incompetent and without foundation, because the  
3 witness has not worked with any actual exposure data from any  
4 actual Grace claimants in this case. She has not taken time  
5 waited average exposure samples, or I should say Dr. Lees did  
6 not take time waited average exposure samples from any actual  
7 Grace claimants. She's not been presented with that data.

8 She has been provided with instead the results of  
9 point-in-time studies and a very -- of a very small number of  
10 studies done by Dr. Lees of other workers in the vicinity of  
11 Grace products at different times who were not claimants in  
12 this case. Average or mean values were taken by Dr. Lees from  
13 those limited numbers of studies and provided to the witness.  
14 She has in turn then used that data to make judgments about the  
15 merits of actual claimants' cases on the basis of that evidence  
16 and not the evidence submitted by the claimants themselves  
17 insofar as their time waited average exposures and quantitative  
18 metrics are concerned.

19 I could make -- I could say a lot more about this  
20 issue, but I think that's the essence of the foundational  
21 objection to the offer of this opinion.

22 MR. BERNICK: Well, the foundational objection would  
23 be properly lodged, although I didn't hear it, under Rule 702  
24 and 703 of the Federal Rules of Evidence. Now, I asked the  
25 witness a very simple question in order to address any

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Anderson - Direct/Bernick

103

Libby

1 remaining or any -- just to address the objection.

2 BY MR. BERNICK:

3 Q In all the work that you did in coming to the point where  
4 you were about to answer the question that I just asked you, I  
5 take it from your testimony that you relied upon Dr. Lees'  
6 work, Dr. Moolgavkar's work, and you relied upon the PIQ  
7 analysis. Is that right?

8 A That's correct.

9 Q Okay, and I just want you to tell me whether the work and  
10 the materials that you relied upon for purposes of offering an  
11 opinion on whether these claims are supported by reliable  
12 science, are those materials and is that -- are they the kind  
13 of information and evidence that people within the field of  
14 risk assessment find to be reliable for purposes of offering  
15 opinions of doing scientific work in that area?

16 A Absolutely.

17 Q Okay. Is there any respect in which you believe that the  
18 materials that you've relied upon don't satisfy that  
19 requirement? That is the requirement that they be the kind of  
20 materials that experts within your field find reliable for  
21 purposes of their expert work?

22 A I found that reliable. It's what I would expect, and I  
23 would not have used them otherwise.

24 Q Thank you. And based upon that foundation and based upon  
25 the work that you have done, could you tell us what your

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Anderson - Direct/Bernick

104

Libby

1 opinion is as to whether there is reliable science as to claims  
2 falling within A and C -- whether there is reliable science to  
3 say that those claims of injury were caused by Grace exposure  
4 either in part or in whole? Is there such reliable science?

5 MR. MULLADY: Objection.

6 A For A's and C's --

7 THE COURT: Just a minute. I believe that this would  
8 go to the weight not to the admissibility. Once again, I'm  
9 going to have to consider all of this when I get all of this  
10 testimony in and have an opportunity to look at the entire  
11 record, but I -- so for now I'm going to overrule it. I  
12 believe this will go to weight not admissibility.

13 MR. MULLADY: Your Honor, just one more statement for  
14 the record --

15 THE COURT: Yes.

16 MR. MULLADY: -- to clarify our position. The  
17 objection is not to under Rule 702 and 703 in the sense that  
18 the witness cannot rely on the opinions of these other experts.  
19 It is not -- that is not the basis for the objection. The  
20 basis for the objection is that the work of these other experts  
21 does not put this witness in a position to draw the conclusions  
22 that she is drawing. In effect, the underlying predicate for  
23 the opinion she's giving is incompetent to deliver the result  
24 that she wants to present before the Court.

25 THE COURT: Your --

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Anderson - Direct/Bernick

105

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1 MR. BERNICK: There's no such things as --  
2 THE COURT: Your objection, if I understand it,  
3 essentially is going to the medical condition of the particular  
4 claimants involved. If I understand what you're saying, you're  
5 attempting, I think, to get to whether or not each individual  
6 claimant has a condition that is founded on a Grace product?  
7 MR. MULLADY: Not exactly, Your Honor.  
8 THE COURT: No. Okay.  
9 MR. MULLADY: This more goes to the issue of  
10 exposure.  
11 THE COURT: All right.  
12 MR. MULLADY: The exposure estimates that she's using  
13 are averages of exposure TWA fiber concentrations gathered by  
14 Dr. Lees from a limited sample of observations of people who  
15 work around -- who have worked around Grace products. It's our  
16 position that in order to express a competent opinion on  
17 causation in this case, whatever witnesses Grace would tender  
18 this opinion through, would have to testify that on the basis  
19 of actual quantitative data from actual claimants and a review  
20 of those claimants' actual exposure histories, there is or  
21 there is not scientific causation. We do not have that from  
22 this witness, and we certainly didn't hear it from Dr. Lees or  
23 Dr. Moolgavkar, and that's the basis for our objection.  
24 MR. BERNICK: Yes, well, the interesting thing is,  
25 Your Honor, that this is an argument that -- this is an